IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Tongbi Jiang et al.	§		
	§	Group Art Unit:	3729
Serial No.: 10/020,352	§		
Filed: December 12, 2001	§	Examiner:	Trinh, Minh N.
For: METHOD OF SELECTIVELY ADJUSTING SURFACE TENSION OF SOLDERMASK MATERIAL	§	Atty Docket:	99-0829.01 MICS:0048--1

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

CERTIFICATE OF TRANSMISSION OR MAILING
37 C.F.R. 1.8

I hereby certify that this correspondence is being transmitted by facsimile to the United States Patent and Trademark Office in accordance with 37 C.F.R. 1.6(d) or is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, Alexandria, VA 22313, on the date below:

October 25, 2004 — Michael G. Fletcher
Date

Sir:

DECLARATION UNDER 37 C.F.R. § 1.131

I, Robert A Manware, hereby declare as follows:

1. My residence, post office address, and citizenship are set forth below, adjacent my signature.

2. I prepared and filed the patent application in the above-referenced application.

3. I have reviewed files related to the above-referenced application, including files related to this application's parent application, which is now U.S. Patent number 6,388,199, filed on July 31, 2000 and issued on May 14, 2002.

4. On information and belief, the inventors, Messrs. Jiang and Tandy, conceived of the subject matter disclosed and claimed in the above-referenced application prior to April 11, 2000. This conception is evidenced by a written description prepared by the inventors prior to April 11, 2000, a redacted copy of which is attached hereto as Exhibit A.

5. I began work on the parent application to the above referenced application prior to April 11, 2000, and I forwarded the draft to Micron for the inventors' review at least as early as April 24, 2000, as evidenced by a reporting letter from Robert A. Manware to Ms. Lisa Boyer of Micron Technology Inc. dated April 24, 2000. A redacted copy of which is attached hereto as Exhibit B.

6. I prepared a revised draft of the parent application to the above-referenced application in accordance with inventor comments and forwarded the revised draft to the inventors for review at least as early as June 13, 2000, as evidenced by a reporting letter from Robert A. Manware to Ms. Lisa Boyer of Micron Technology Inc. dated June 13, 2000. A redacted copy of this which is attached hereto as Exhibit C.

7. Afterwards, I finalized and filed the parent application to the above-referenced application on July 31, 2000 as evidenced by a true and correct copy of U.S. Patent 6,388,199, which matured from the parent application and is attached hereto as Exhibit D.

8. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements, and the like, are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: October 25, 2004

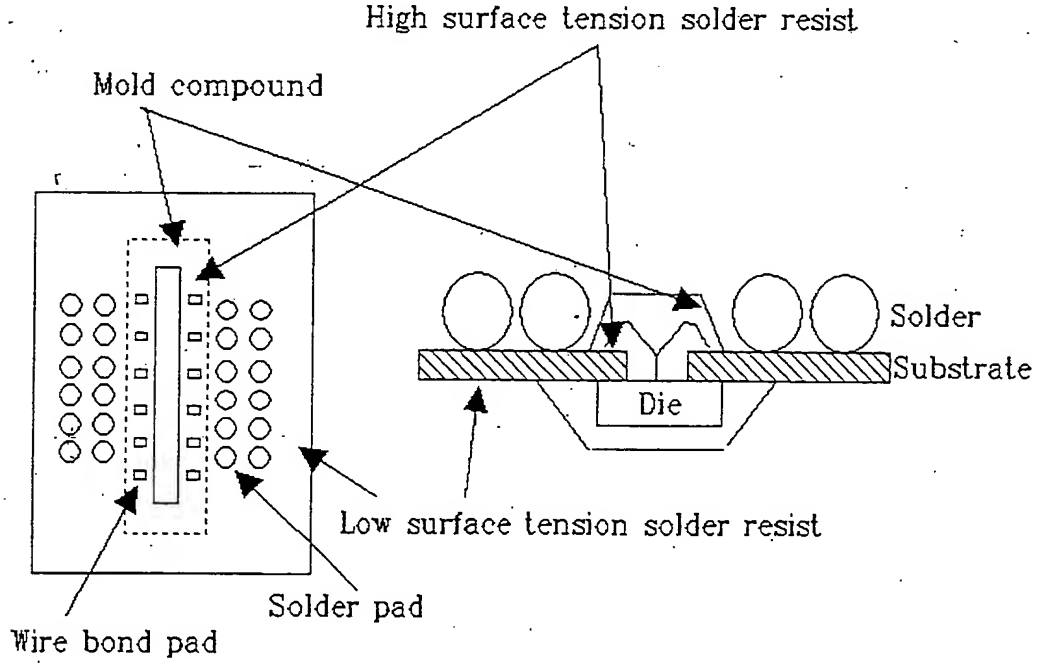
Robert A. Manware

Declarant's Full Name:	Robert A. Manware
Country of Citizenship:	U.S.A.
Residence Address:	320 Jackson Hill St. #114 Houston, TX 77007
Business Address:	Fletcher Yoder P.O. Box 692289 Houston, Texas 77269-2289 281-970-4545

EXHIBIT A

Selectively UV bump on solder mask material to promote adhesion on BGA mold compound while maintaining low surface tension on the ball attach area to prevent from solder balling (solder bringing).

Solder ball requires low surface tension soldermask to minimizing bridging problem. Mold compound requires high surface tension soldermask in order to have adequate adhesion. This can be done on the same soldermask material with the selective UV exposure only on the molded area. The UV bump will terminate all the reactive dangling bonds on the soldermask resulting a high energy surface finish.



The surface tension enhancement after UV bump was demonstrated by Taiyo (see attached papers). This disclosure teaches how to use the UV bump to selectively change soldermask chemistry for Micron's BOC package, but we also claim to use the selective UV bump in any BGA applications for the purpose to promote/demote wetting and adhesion at the interfaces or surfaces. Selective UV bump was taught in this disclosure, but we wanted to broadly claim any

selective activation method, e.g., downstream plasma etching, reactive ion etching, wet chemical etching, radiation etching (x-ray, neutron,...).

EXHIBIT B

FLETCHER, YODER & VAN SOMEREN

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MICS:0048
99-0829

April 24, 2000

Ms. Lisa Boyer
Micron Technology, Inc.
8000 South Federal Way
Boise, Idaho 83707-0006

Re: *U.S. Patent Application of Tonbgi Jiang and Patrick Tandy*
Entitled: METHOD OF SELECTIVELY ADJUSTING SURFACE TENSION OF SOLDERMASK MATERIAL

Dear Lisa:

Enclosed for Mr. Jiang's and Mr. Tandy's collective review is the patent application we recently prepared for the above-referenced invention.

Very truly yours,

Robert A. Manware

EXHIBIT C

FLETCHER, YODER & VAN SOMEREN

A Professional Corporation

Attorneys at Law

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Houston, Texas 77070

Post Office Box 692289
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MICS:0048
99-0829

June 13, 2000

Ms. Lisa Boyer
Micron Technology, Inc.
8000 South Federal Way
Boise, Idaho 83707-0006

Re: *U.S. Patent Application of Tongbi Jiang et al.*
Entitled: "METHOD OF SELECTIVELY ADJUSTING SURFACE TENSION OF SOLDERMASK MATERIAL"

Dear Lisa:

Enclosed for your review is the patent application we recently revised in accordance with the comments received from the inventors

Very truly yours,

Robert A. Manware